

OCCUPATIONAL INHERITANCE IN SERVICE ACADEMY CADETS AND MIDSHIPMEN

By

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ABSTRACT

Occupational inheritance refers to the phenomenon where sons and daughters follow in the career paths of their parents. Historically this has been documented in the areas of Engineering, Medicine and Education. This study investigated the phenomenon of occupational inheritance as it pertains to military service. Archival data provided by the United States Military Academy (USMA), the United States Naval Academy (USNA), and the United States Air Force Academy (USAFA) totaled 15,831 cadets and midshipmen for the classes of 2002-2005 at the USMA and USNA and for 2006-2009 at the USAFA. Results confirmed the existence of occupational inheritance in the military but found no difference in graduation rates between military dependents and non-military dependents. Analysis also revealed statistically significant differences in the number of military dependents attending the three academies.

Keywords: Military, U.S. Military Academies, Occupational Inheritance, Careers.

INTRODUCTION

Dating back to 17th century Britain when the eldest son would often inherit his father's estate, the next son would enter the clergy, and the youngest would join the military, parents have long had an influence on the careers of their children (Spraggs, 2002). The purpose of this study based on archival data was to assess the phenomenon of occupational inheritance (OI) in a sample of young people preparing for careers in the military. Occupational Inheritance occurs when children follow in the career path of their parent (Raller & Daerries, 2008). This study examined the rates of OI between students in entering classes at three U.S. academies whose parents had a record of military service compared to rates of OI of students whose parents had never served in the military. A second purpose included determining whether differences in rates of OI occurred between students entering and graduating from two of the academies. A final purpose of the study was to determine if differences in rates of OI existed among the three academies.

Literature Review

Results of past research that attempt to validate OI are mixed regarding whether a parent's military career

choice influences an offspring's career aptitudes and decision to join the military. A study by Bowen (1986) found no difference in the OI rates of offspring whose parent had served in the military versus OI rates of offspring of parents who held other careers. Robinson (1981) and Hunt (1982) found significantly higher levels of OI among military dependents than of non-military dependents. Bowen (1986) found that when participants were disaggregated by their parent's commission status, (officers or enlisted personnel) that there was no difference in OI. Studies of OI rates in careers other than military service suggest that individuals whose parent (father) worked in higher socio-economic careers (medicine, engineering) scored higher in OI than offspring of parents who worked in semi or unskilled positions (Wertz, 1968). Trice (1991) reported that children were more likely to maintain their early career aspirations if they wished to hold identical or similar occupations as their father. Regardless of OI, from as early as the fifth grade, students chose occupations that maintained or improved upon their socioeconomic status (Wertz, 1968; Laband & Lentz, 1985).

The differential rates of OI found in the studies reported above seem to call into question whether OI is a valid

phenomenon that influences young people to choose a career in military service. Due to the inconsistency of past research findings and the absence of studies conducted within the past five years there is a clear need for research based on more current data.

Hypothesis

Rather than examining the OI rates of all individuals joining the military, the current study focused on individuals included in the entering classes at the three major military academies (United States Military Academy (USMA), United States Naval Academy (USNA), and the United States Air Force Academy (USAFA)). For this sample we predict moderate to relatively high levels of OI (> 20 percent). Werts (1968) found occupations where approximately 20% or more of individuals followed in their parents' career path to reflect high rates of OI. We further expect the OI rates of graduating seniors from the respective entering classes will remain high, possibly reflecting cadets' and midshipmen's commitment to their choice of a military career. Finally the study determines empirically that if there are differences in OI among students attending the three academies.

Method

Procedure

Data were derived from anonymous archival samples of 15,831 students provided by the Offices of Institutional Research at the USMA, USNA, and USAFA. The data included anonymous responses of cadets and midshipmen surveyed when entering and exiting their respective schools, with the exception of the USAFA, which only provided entrance data.

While drawing comparisons among the data from the academies, it was necessary to use those years that were made available by all schools. For this reason, the classes of 2002 to 2005 ($n = 9679$) from USMA and USNA were analyzed to compare military and civilian dependents in terms of their entry and graduation rates. To maximize the use of data, a separate analysis incorporating USAFA entrance data from the classes of 2006 to 2009 ($n = 6152$) with the USMA and USNA entrance data was performed.

Results

Data confirm that the OI rates at each of the three academies exceeded 20% while showing a majority of each entering class was comprised of non military dependents. (Descriptive data are summarized in Table 1). Analysis of entrance data yielded significant results with USMA and USNA data ($\chi^2 = 471.58, df = 1, p < 0.0001$) and when USAFA data were included ($\chi^2 = 689.61, df = 2, p < 0.0001$).

Graduation rates at both of the academies (USMA and USNA) that provided data reveal that although significantly more civilian dependents graduated than military dependents that relative to their numbers in the entering class, there was not a significant difference in graduation rates between military and non military dependents at the USMA (79.2 % and 78.8 % respectively) and USNA (81.2% and 79.3 % respectively) ($\chi^2 = 655.25, df = 1, p = 0.94$).

Data on graduating classes at the USMA and USNA also yielded a significant difference between the number of graduating military and non-military dependents ($\chi^2 = 31.82, df = 1, p < 0.0001$). Both of these analyses demonstrate that there is a significant difference in the number of military dependents and non-military dependents entering and graduating from each of the academies. There was not a significant difference in graduation rates between military dependents and non-military dependents at the USMA (79.2% and 78.8% respectively) and USNA (81.2% and 79.3% respectively) ($\chi^2 = 0.005, df = 1, p = 0.94$).

Academy	Total	Military dependents entering (% of class)	Non-Military dependents entering (% of class)	Military Dependents Graduating (Success Rate)	Non-Military Dependents Graduating (Success Rate)
USMA (2002-2005)	4757	2187 (46%)	2570 (54%)	1733 (79.2%)	2024 (78.8%)
USNA (2002-2005)	4922	1907 (38.7%)	3015 (61.3%)	1548 (81.2%)	2347 (79.3%)
USAFA (2006-2009)	6152	1400 (22.8%)	4752 (77.2%)	N/A	N/A

Table 1. Entrance and Graduation Rates for Military Academies

A significant difference between the number of entering military dependents was found between the USMA (46%) and USAFA (22.8%) ($\chi^2 = 655.25, df = 1, p < 0.0001$), the USMA (45%) and USNA (38.7 %) ($\chi^2 = 51.81, df = 1, p < 0.0001$), and the USNA (38.7 %) and USAFA (22.8 %) ($\chi^2 = 333.69, df = 1, p < 0.0001$). Inferential statistics are summarized in Table 2.

Discussion

The branches of the military have some cultural differences between them that could explain the significantly different numbers of military dependents attending the academies. The data used for analysis were provided in disaggregated form by various different criteria depending upon the academy that provided the data. For this reason, meaningful analyses of other socio-economic factors (cadet or parent gender, time served by parent, etc.) that may provide insight into why differences in OI rates exist between the academies was not possible. However, the data used included all cadets and midshipmen from the years provided by the military academies, thus strengthening the external validity of this study's findings. The data revealed OI at all three military academies, suggesting the reliability of the phenomenon. Also, the behavioral operational definition of OI used in this study leaves little room for subjective interpretation and strengthens the face validity of the construct.

Entrance data within academies (based on n entering)	χ^2	df	p
USMA & USNA	471.58	1	< 0.0001
USMA, USNA, & USAFA	689.61	2	< 0.0001
Graduation data (based on n graduating)			
USMA & USNA	31.82	1	< 0.0001
Graduation rates (based on % graduating)			
USMA & USNA	0.005	1	= 0.94
Comparisons OI rates between academies			
USMA & USAFA	655.25	1	< 0.0001
USMA & USNA	51.81	1	< 0.0001
USNA & USAFA	333.69	1	< 0.0001

Table 2. Inferential Statistics

The academic criteria for gaining acceptance to the academies are significantly more rigorous than standards for joining the military as an enlisted person or as an officer through a university Reserve Officer Training Corps (ROTC) program (Princeton Review, 2008). Therefore the results of the current study should not be generalized to all military personnel. In comparing the results of the current study on OI to results of previous research one must note that most past research has defined OI in terms of the relationship of sons to fathers in contrast to offspring to mothers and fathers. As the number of women entering the military and civilian workforce increases, this factor becomes more important. Another interesting finding of the study is that graduation rates of the USMA and USNA are equal for military dependents and non-military dependents (see Table 1). This finding may suggest that both groups are highly determined to graduate and enter the military.

The next objective for researchers is to determine what factors in addition to parents' career choice influence OI. Other researchers (Werts, 1968; Labond & Lentz, 1985) placed emphasis on maintaining or improving one's socio-economic status as a key factor in OI. In the current study, any military dependents were presumably maintaining their socio-economic status (if they were the offspring of an officer) or improving their socio-economic status (if their parents were enlisted personnel or non-commissioned officers). The authors believe that a career in the military would be more appealing to an individual from an enmeshed family than to an individual from a less enmeshed family. In family systems theory, enmeshment refers to individuals who prefer more structured than unstructured environments and who have less conflict when asked or expected to conform to well defined rules and routines (Minuchin, 1974). A preliminary study conducted by Roller and Doerr (2008) found no relationship between OI and family enmeshment (Minuchin, 1974) in a sample of students attending or applying to graduate school in education. The authors believe that the degree to which students come from highly enmeshed families may prove to be a valid predictor of their preference for military service. However, additional research that validates the phenomenon of OI

is still needed.

Conclusion

Based on a large and current sample the study has confirmed the existence of varying rates of OI in students entering three of the nation's military academies. While there were disproportionate numbers of military dependents in each entering class, military and non-military dependents graduated at approximately the same rate (79.2 and 78.8 percent respectively at the USMA, 81.2 and 79.3 percent respectively at the USNA). In conclusion, the authors are confident that in a sample of students studying at the USMA, USNA, and USAFA, OI exists and may play an important role in a military dependent's decision to attend these institutions. In addition, compared to non-military dependent status, being the son or daughter of someone who has served in the military is not a differential predictor of student success as measured by graduation rates.

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References

[1]. Bowen, V.L. (1986). Intergenerational occupational inheritance in the military: a reexamination.

Adolescence, 21(83), 623-629.

- [2]. Hunt, J.M. (1982). *Intergenerational Occupational Inheritance in the Department of Defense*. Master's thesis. Naval Postgraduate School, Monterey, CA.
- [3]. Laband, D.N. and Lentz, B.F. (1985) *The Roots of Success: Why Children Follow in their Parents' Career Footsteps*, New York, Praeger.
- [4]. Minchini, Salvador. (1974) *Families and Family Therapy*. Cambridge, MA: Harvard University Press.
- [5]. Princeton Review (2008). Retrieved September 26, 2008 from <http://princetonreview.com>.
- [6]. Robinson, K. S. (1981). *Intergenerational Occupational Inheritance in the Navy*. Master's thesis. Naval Postgraduate School, Monterey, CA.
- [7]. Roller, B. & Doerries, L. E. (2008, May). Occupational Inheritance of Individuals Pursuing Careers in Education as Predicted by Structural Family Theory. Paper presented at *Paideia Undergraduate Research Conference*, Christopher Newport University, Newport News, VA.
- [8]. Spraggs, G. (2002). *Outlaws and Highwaymen*, London: Pimlico.
- [9]. Trice, A.D. (1991). A retrospective study of career development: I. Relationship among first aspirations, parental occupations, and current occupations. *Psychological Reports*, 68, 287-290.
- [10]. Trice, A. D. & Knapp, L. (1992) Relationship of children's career aspirations to parents' occupations. *Journal of Genetic Psychology*, 153(3), 355-357.
- [11]. Werts, C. E. (1968). Parental influence on career choice. *Journal of Counseling Psychology*, 15(1), 48-52.

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Dr. Doerries and Mr. Roller have been investigating the correlates of family enmeshment and cohesion as variables possibly associated with higher levels of occupational inheritance. Dr. Doerries is a Professor Emeritus of Psychology at Christopher Newport University in Virginia. His past research has focused on Activity-Based Anorexia Nervosa and Educational Psychology. Mr. Roller is a student at Christopher Newport University who currently works in an animal behavior laboratory and plans to attend graduate school in Neuroscience.

